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(71) Applicant: Maxygen, Inc.
Redwood City, CA 94063 (US)

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(72) Inventor: Stemmer, Willem, P.C.
Los Gatos, California 95030 (US)

(62) Document number(s) of the earlier application(s) in
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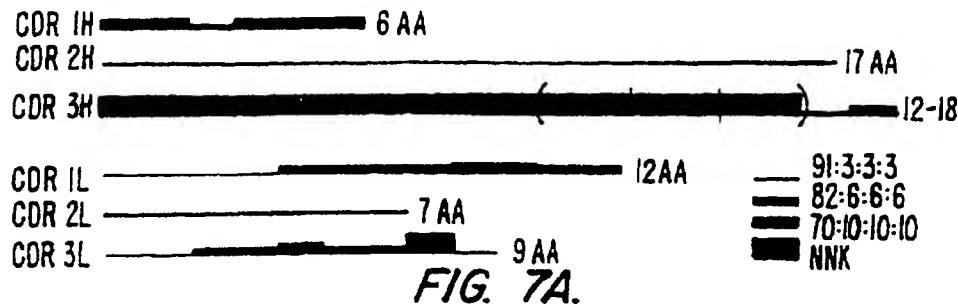
(74) Representative: Irvine, Jonquill Claire
J.A. KEMP & CO.
14 South Square
Gray's Inn
London WC1R 5JJ (GB)

**(54) Methods for generating polynucleotides having desired characteristics by iterative selection
and recombination**

(57) A method of producing a recombinant polynucleotide having a desired characteristic, comprising:

(a) providing a population of single-stranded nucleic acid fragments corresponding to a set of related-sequence polynucleotides, wherein the set of related-sequence polynucleotides comprises polynucleotides with non-identical sequences;
(b) providing at least one template polynucleotide wherein the population of single-stranded fragments is capable of hybridizing to the at least one template polynucleotide;

(c) hybridizing the population of single-stranded fragments to the at least one template polynucleotide and extending the hybridized fragments on the at least one template polynucleotide with a polymerase, thereby forming a plurality of sequence-recombined polynucleotides, said sequence-recombined polynucleotides comprising sequences from the set of related-sequence polynucleotides and sequences derived from the at least one template polynucleotide; and,
(d) selecting or screening the sequence-recombined polynucleotides for the desired characteristic.



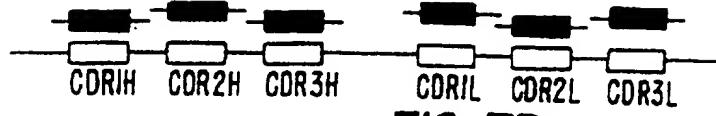


FIG. 7B.

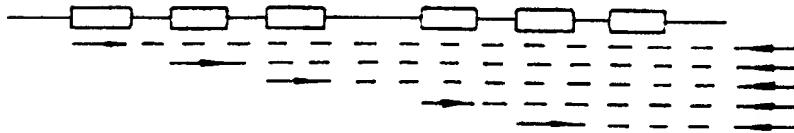


FIG. 7C.

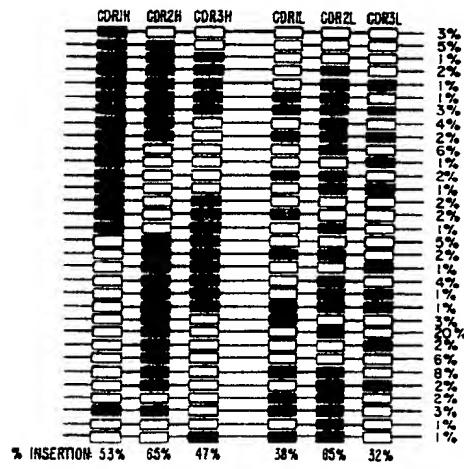


FIG. 7D.



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EUROPEAN SEARCH REPORT

Application Number

EP 01 10 3198

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<p>The present search report has been drawn up for all claims</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Place of search</td> <td style="width: 33%;">Date of completion of the search</td> <td style="width: 33%;">Examiner</td> </tr> <tr> <td>THE HAGUE</td> <td>4 July 2001</td> <td>Hornig, H</td> </tr> <tr> <td colspan="3">CATEGORY OF CITED DOCUMENTS</td> </tr> <tr> <td colspan="3"> X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document </td> </tr> <tr> <td colspan="3"> T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document </td> </tr> </table>				Place of search	Date of completion of the search	Examiner	THE HAGUE	4 July 2001	Hornig, H	CATEGORY OF CITED DOCUMENTS			X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document			T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons &: member of the same patent family, corresponding document		
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Application Number
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ON EUROPEAN PATENT APPLICATION NO.**

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